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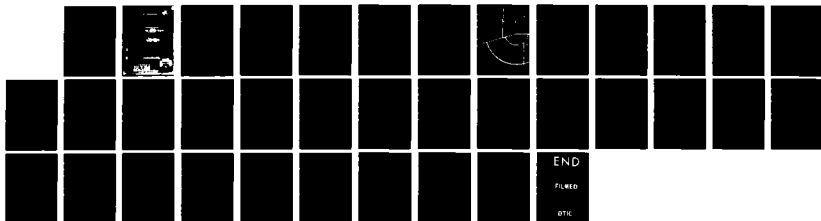
19319A MLRS MISSILE NUMBER 419 490 462 482 410 362
ROUND NUMBER V659/FE-3. (U) ARMY ELECTRONICS RESEARCH
AND DEVELOPMENT COMMAND WSMR NM ATN. D C KELLER
SEP 84 ERADCON/ASL/DR-1358

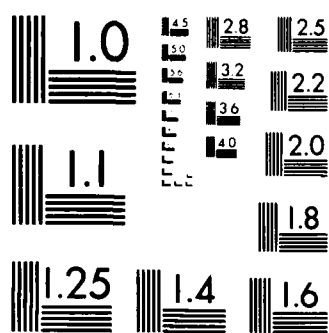
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REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER DR-1358	2. GOVT ACCESSION NO. A149556	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) 19319A MLRS Missile Number 419, 490, 462, 482, 410, 362 Round Number V659/FE-31 Thru V664/FE-36		5. TYPE OF REPORT & PERIOD COVERED
7. AUTHOR(s) White Sands Meteorological Team		6. PERFORMING ORG. REPORT NUMBER
9. PERFORMING ORGANIZATION NAME AND ADDRESS		8. CONTRACT OR GRANT NUMBER(s) DA Task 1F665702D127-02
11. CONTROLLING OFFICE NAME AND ADDRESS US Army Electronics Research & Development Cmd Atmospheric Sciences Laboratory White Sands Missile Range, New Mexico 88002		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) US Army Electronics Research and Development Cmd Adelphi, MD 20783		12. REPORT DATE 27 Aug 84
		13. NUMBER OF PAGES
		15. SECURITY CLASS. (of this report) UNCLASSIFIED
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report)		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report) Approved for public release; distribution unlimited.		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number)		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for launching of the 19319A MLRS, Missile Number 419, 490, 462, 482, 410, 362, Round Number V659/FE-31 Thru V664/FE-36 are presented in tabular form.		

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INTRODUCTION

19319A MLRS, Missile Number 419, 490, 462, 482, 410 and 362, Round Numbers V659/FE-31 Thru V664/FE-36, were launched from LC-33, White Sands Missile Range (WSMR). New Mexico, at 1038:14, 1038:19, 1038:23, 1038:28, 1038:32 and 1038:37 MDT, 27 Aug 84. The scheduled launch times were 1030 MDT with a 4.5 second separation.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature ($^{\circ}\text{C}$), relative humidity, dew point ($^{\circ}\text{C}$), density (gm/m^3), wind direction and speed, and cloud cover were made at the LC-33 Met Site at T-0 minutes.

(2) Anemometer data were provided from existing pole-mounted and tower-mounted anemometers at LC-33. Monitor of wind speed and direction from one anemometer was also provided in the launch control room.

b. Upper Air

(1) Low level wind data were obtained from pilot-balloon observations at:

SITE AND ALTITUDE

LC-33 2 km

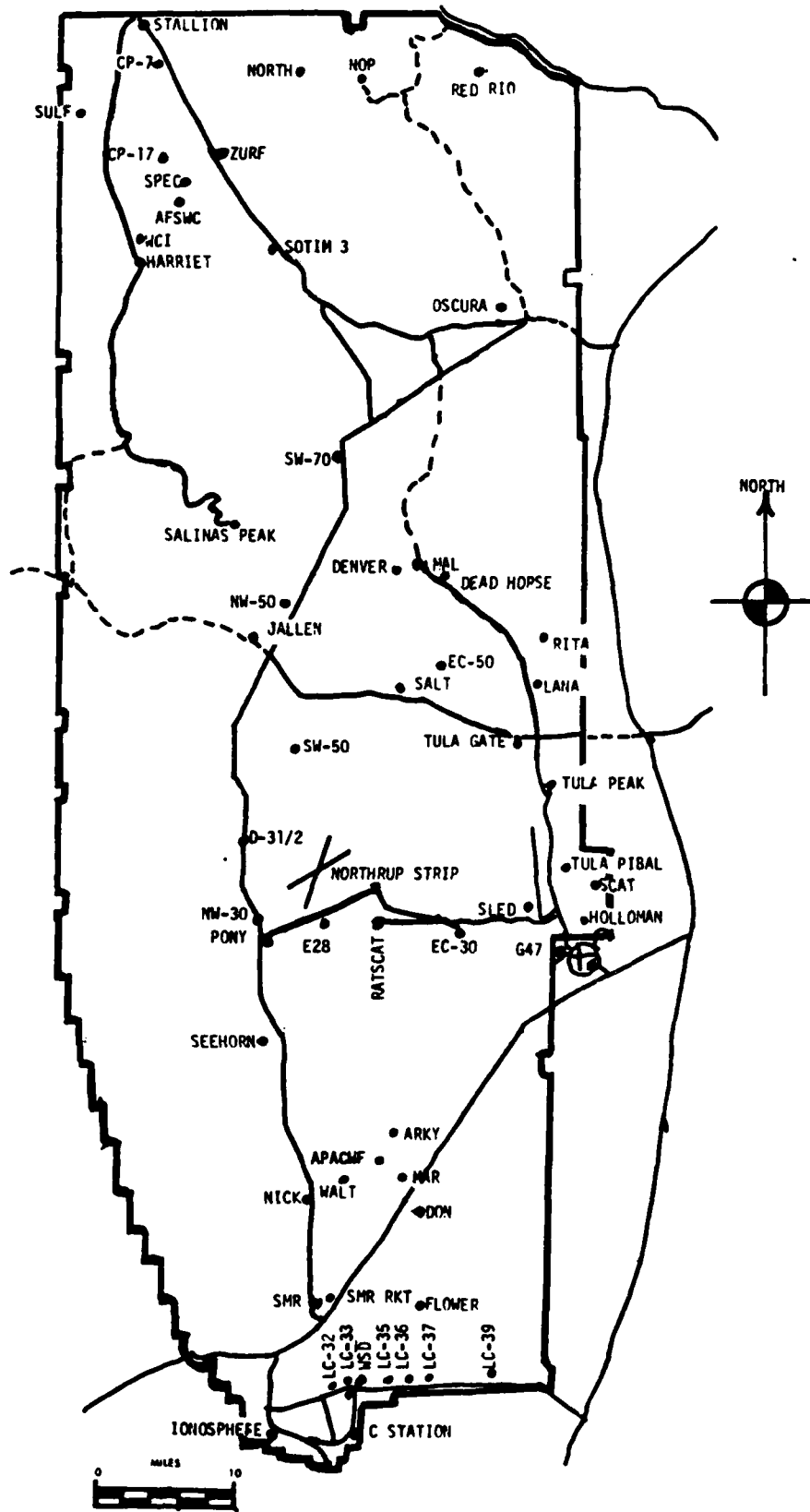
(2) Air structure data (rawinsonde) were collected at the following Met Sites.

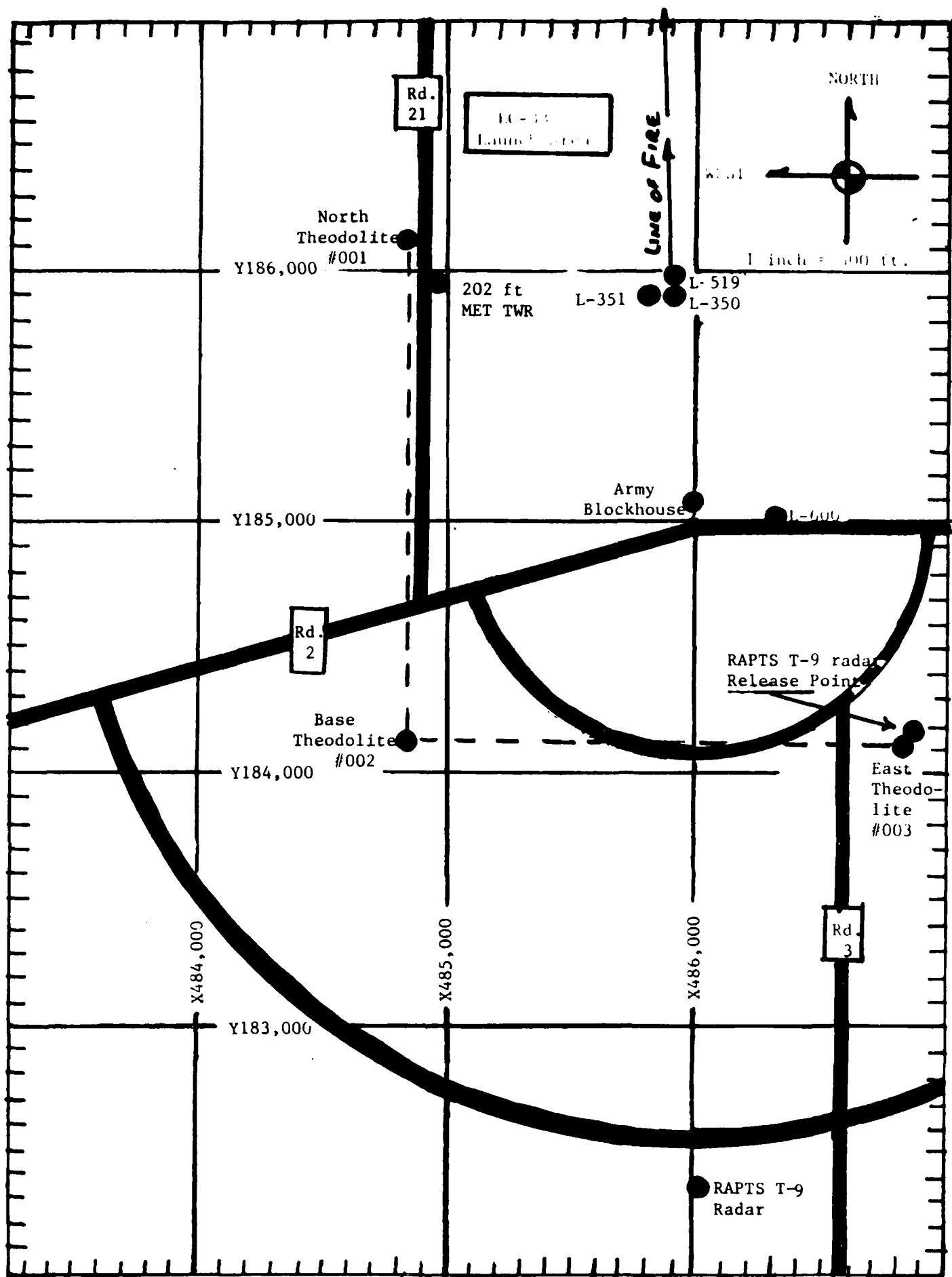
SITE AND TIME

WSD 0845 MDT
SMR 0845 MDT
DON 0845 MDT
WSD 1038 MDT
SMR 1037 MDT
DON 1115 MDT

Accession For	
NTIS GRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By _____	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A-1	

WSMR METEOROLOGICAL SITES





PERFECT SURFACE OBSERVATION

TABLE 1 _____ STATION LC-33

DATE 27 Aug 1984 X= 484,982.64 Y= 185,957.73 H= 3995.00

TIME 1039

TIME MDL	PRESSURE hPa	TEMPERATURE °C	DEW POINT °C	RELATIVE HUMIDITY %	DENSITY gm/m ³	WIND			VISIBIL- ITY
						DIRECTION degs	Tn	SPEED kts	CHARACTER kts
1039	883.9	26.8	18.6	61		030		06	40

OBSTRUCTIONS TO VISIBILITY	CLOUDS						REMARKS
	1st LAYER		2nd LAYER		3rd LAYER		
	AMT	TYPE	HGT	AMT	TYPE	HGT	
	0	CU	6500	9	CI	25000	

PSYCHROMETRIC COMPUTATION

TIME:	MDT	1039	
DRY BULB TEMP.		26.8	
WET BULB TEMP.		20.9	
WET BULB DEPR.		5.9	
DEW POINT		18.6	
RELATIVE HUMID.		61	

LC-33 METEOROLOGICAL TOWER
ANEMOMETER MEASURED WIND DATA

WSTM COORDINATES X=484,982.64 Y=185,957.73 H=3983.00(BASE)

TABLE NO. 2

DATE 27 Aug 1984 1038 M D T
DAY MONTH YEAR TIME

LEVEL #1 12 FT AGL			LEVEL #2 62 FT AGL		
T-TIME (SEC)	DIR (DEG)	SPEED (KTS)	T-TIME (SEC)	DIR (DEG)	SPEED (KTS)
T-30	352	05	T-30	M	07
T-20	341	05	T-20	M	07
T-10	341	05	T-10	M	07
T- 0 (1st T)	354	03	T- 0 (1st T)	M	09
T+10	017	05	T+10	M	09
T+20	018	05	T+20	M	08
T+30	333	04	T+30	M	07
T+40			T+40		
T+50			T+50		
T+60			T+60		
LEVEL #3 102 FT AGL			LEVEL #4 202 FT AGL		
T-TIME (SEC)	DIR (DEG)	SPEED (KTS)	T-TIME (SEC)	DIR (DEG)	SPEED (KTS)
T-30	360	07	T-30	349	08
T-20	360	07	T-20	339	09
T-10	360	09	T-10	346	09
T- 0 (1st T)	007	10	T- 0 (1st T)	339	08
T+10	360	10	T+10	341	08
T+20	360	09	T+20	348	09
T+30	006	10	T+30	346	08
T+40			T+40		
T+50			T+50		
T+60			T+60		

TABLE 3

T-TIME PILOT-BALLOON MEASURED WIND DATA

DATE 27 August 1984

SITE: LC-33
TIME: 1039 MDT
WSTM COORDINATES:
X= 486,037.24
Y= 182,350.16
H= 3,977.30

SITE:
TIME
WSTM COORDINATES:
X=
Y=
H=

LAYER MIDPOINT	DIRECTION	SPEED
<u>METERS AGL</u>	<u>DEGREES</u>	<u>KNOTS</u>
SURFACE	030	06
150	014	04
210	056	08
270	059	08
330	061	07
390	072	04
500	060	03
650	019	03
800	035	03
950	358	03
1150	009	01
1350	222	04
1550	222	04
1750	235	05
2000	219	04

LAYER MIDPOINT	DIRECTION	SPEED
<u>METERS AGL</u>	<u>DEGREES</u>	<u>KNOTS</u>
SURFACE		
150		
210		
270		
330		
390		
500		
650		
800		
950		
1150		
1350		
1550		
1750		
2000		

Data obtained from a RAPT'S T-9
radar tracked pilot-balloon observation.

TABLE 4

AIMING AND T-TIME COMPUTER MET MESSAGE DATA

27 August 1984

WSD 0845 MDT

METCM1324064

271480122883

00089006	29710883
01025010	29620873
02599005	29760849
03526006	29490810
04419005	29100765
05419005	28720721
06461002	28390679
07285001	28070639
08209005	27710601
09346003	27350565
10325004	27040531
11356007	26750498
12388011	26330453

SMR 0845 MDT

METCM1325064

271480122883

00036009	29840883
01036009	09770873
02580003	09760848
03487006	09590810
04399004	09170765
05442005	08800721
06453003	08450679
07453002	08090640
08228003	07730602
09318004	07380566
10320003	07050531
11374006	06780499
12390010	26330453

DON 0845 MDT

METCM1326063

271480123882

00533004	29640882
01010006	29660872
02582006	29670847
03466004	29540809
04446005	29210763
05451007	28840720
06489004	28470678
07514002	28100638
08159002	27770601
09267005	27460565
10331006	27150531
11352004	26830498
12395010	26390452

WSD 1038 MDT

METCM1324064

271660122884

00053006	30250884
01038006	29990874
02016004	29740849
03575003	29520811
04392006	29220765
05395006	28840721
06377003	28470680
07365003	28090640
08301004	27660602
09458002	27330566
10265002	27000532
11355005	26780499
12365008	26320453

SMR 1037 MDT

METCM1325064

271660122883

00053006	30200883
01075007	30040873
02048004	29840849
03522003	09580811
04423004	09250765
05404007	08860721
06372004	08500680
07347001	08160640
08245004	07740602
09472001	07330566
10271002	06960532
11385004	06790499
12377009	26300453

DON 1115 MDT

METCM1326063

271730123882

00053002	30490882
01053005	30200872
02007006	29850848
03539004	29580810
04412006	29260764
05403007	28870720
06416005	28540679
07366003	38170639
08216003	27760602
09398001	27360566
10365001	27040531
11357004	26850499
12369008	26380453

STATION ALTITUDE 3989.00 FEET MSL
27 AUG. 84
ASCENSION NO. 438

0845 MDT

SIGNIFICANT LEVEL DATA

2400020438
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DLG
106.37033 LON DEG

TABLE 5

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES	DEWPOINT CENTIGRADE	
883.4	3989.0	21.2	18.9	87.0
877.3	4186.2	19.1	17.1	88.0
863.8	4628.2	22.3	16.6	70.0
850.0	5089.8	22.5	15.4	64.0
798.9	6854.8	18.8	11.9	64.0
778.9	7569.7	17.4	9.3	59.0
700.0	10537.6	11.0	3.3	59.0
664.5	11960.6	8.6	.6	57.0
655.1	12348.0	8.1	-.1	56.0
609.5	14293.2	3.9	-3.4	59.0
591.7	15083.7	2.2	-4.3	62.0
580.2	15404.4	1.2	-9.4	45.0
565.7	16272.6	-.4	-5.8	67.0
523.2	18315.6	-3.7	-16.6	36.0
514.1	18770.5	-5.0	-13.1	53.0
500.0	19488.8	-5.8	-15.3	47.0
482.6	20399.3	-7.5	-18.2	42.0
474.4	20838.1	-7.7	-23.8	26.0
459.2	21609.2	-9.1	-27.3	21.0
428.2	23435.8	-12.8	-33.3	16.0
419.2	23967.6	-14.1	-35.0	15.0
405.9	24770.5	-15.6	-28.1	33.0
400.0	25133.4	-16.7	-32.4	24.0

STATION ALTITUDE 3989.00 FEET MSL
27 AUG. 84
ASCENSION NO. 438

UPPER AIR DATA
2400020438
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 6

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
3989.0	883.4	21.2	87.0	1035.7	671.5	50.0	6.0	1.000327
4000.0	883.1	21.1	87.1	1035.8	671.4	49.7	6.0	1.000326
4500.0	867.7	21.4	75.2	1017.8	671.4	28.2	4.2	1.000311
5000.0	852.7	22.5	65.2	996.9	672.5	351.2	3.6	1.000299
5500.0	837.8	21.6	64.0	982.7	671.4	318.0	4.7	1.000291
6000.0	823.3	20.6	64.0	969.4	670.1	301.3	5.6	1.000284
6500.0	808.9	19.5	64.0	956.2	668.8	288.0	4.9	1.000278
7000.0	794.8	18.5	63.0	943.2	667.5	271.9	4.4	1.000270
7500.0	780.8	17.5	59.5	930.4	666.1	254.0	4.2	1.000261
8000.0	766.9	16.5	59.0	917.5	664.8	242.4	4.6	1.000254
8500.0	753.3	15.4	59.0	904.7	663.5	238.0	5.2	1.000249
9000.0	739.8	14.3	59.0	892.1	662.2	238.2	5.3	1.000243
9500.0	726.6	13.2	54.4	879.8	660.8	239.6	5.2	1.000236
10000.0	713.7	12.2	59.0	867.5	659.5	238.6	4.3	1.000232
10500.0	700.9	11.1	59.0	855.5	658.2	241.1	3.2	1.000227
11000.0	688.3	10.2	58.4	842.7	657.1	269.7	1.7	1.000222
11500.0	675.8	9.4	57.6	830.1	656.1	304.9	1.4	1.000217
12000.0	663.5	8.5	56.9	817.6	655.0	308.2	1.4	1.000212
12500.0	651.4	7.8	56.2	805.0	654.1	240.9	.6	1.000206
13000.0	639.4	6.7	57.0	793.4	652.8	169.5	2.0	1.000204
13500.0	627.7	5.6	57.8	781.9	651.5	147.1	2.9	1.000200
14000.0	616.2	4.5	58.5	770.7	650.2	134.8	3.9	1.000196
14500.0	604.8	3.5	59.8	759.5	648.9	130.4	3.9	1.000192
15000.0	593.6	2.4	61.7	748.3	647.6	131.2	3.8	1.000189
15500.0	582.5	1.4	48.4	737.5	646.2	142.5	3.5	1.000181
16000.0	571.6	.3	54.0	726.5	644.9	166.2	3.3	1.000180
16500.0	560.8	-8	63.5	715.5	643.8	194.3	3.8	1.000176
17000.0	550.2	-1.6	56.0	704.3	642.7	197.5	4.0	1.000173
17500.0	539.8	-2.4	48.4	693.3	641.6	197.3	4.1	1.000167
18000.0	529.6	-3.2	40.8	682.4	640.5	187.3	4.1	1.000164
18500.0	519.5	-4.2	42.9	672.0	639.3	184.5	4.3	1.000160
19000.0	509.6	-5.3	51.1	661.6	638.1	192.7	5.0	1.000155
19500.0	499.8	-5.8	46.9	650.4	637.4	199.4	6.3	1.000153
20000.0	490.2	-6.8	44.2	640.2	636.3	203.9	8.7	1.000151
20500.0	480.7	-7.5	38.3	629.8	635.2	204.5	17.6	1.000147
21000.0	471.4	-8.0	25.0	618.9	634.6	204.3	12.3	1.000142
21500.0	462.3	-8.8	22.0	608.9	633.6	211.0	11.7	1.000139
22000.0	453.2	-9.6	20.1	598.2	632.4	218.5	11.0	1.000137
22500.0	444.4	-10.8	18.6	589.2	631.1	229.0	9.9	1.000134
23000.0	435.6	-11.9	17.2	580.7	629.8	232.4	9.7	1.000132

STATION ALTITUDE 3989.00 FEET MSL
 27 AUG. 84
 ASCENSION NO. 438 0845 MDT

UPPER AIR DATA
 2400020438
 WHITE SANDS

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

TABLE 6 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
23500.0	427.1	-13.0	15.9	571.7	628.5	231.8	10.0	1.000129
24000.0	418.7	-14.2	15.7	563.0	627.0			1.000127
24500.0	410.3	-15.1	26.9	553.7	626.0			1.000126
25000.0	402.2	-16.3	27.3	545.2	624.5			1.000124

STATION ALTITUDE 3989.00 FEET MSL
 27 AUG. 84 11845 MDT
 ASCENSION NO. 438

MANDATORY LEVELS
 2400020438
 WHITE SANDS

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LONG DEG

TABLE 7

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE		DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	5086.	22.5	15.4	64.	344.3	3.7
800.0	6810.	18.9	11.9	64.	278.0	4.5
750.0	8620.	15.1	7.2	59.	237.1	5.4
700.0	10527.	11.0	3.3	59.	242.1	3.1
650.0	12546.	7.6	-5	56.	221.4	.6
600.0	14695.	3.0	-3.9	61.	128.6	4.0
550.0	16990.	-1.6	-9.2	56.	197.5	4.0
500.0	19461.	-5.8	-15.3	47.	199.1	6.2
450.0	22149.	-10.2	-29.0	20.	221.6	10.5
400.0	25091.	-16.7	-32.4	24.		

STATION ALTITUDE 1097.30 FEET MSL
27 AUG. 34 0845 MDT
OBSERVATION NO. 149

SIGNIFICANT LEVEL DATA
26100/0100
1000

GEOMETRIC CORRECTIONS
20.45746 LAY COR
1.66277 COR

TABLE 8

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR	WET BULB DEGREES CENTIGRADE	
883.2	1907.3	22.5	18.5	71.0
881.1	4045.5	21.9	17.5	71.0
850.0	5004.5	22.3	15.2	71.0
822.7	6028.7	22.0	13.1	70.0
771.7	7843.1	17.4	8.4	57.0
700.0	10556.9	11.4	3.1	51.0
661.1	12122.7	8.3	-0.5	52.0
629.1	13509.6	5.9	-4.0	53.0
598.0	14825.4	2.2	-5.0	56.0
591.7	15107.6	2.6	-3.7	57.0
580.2	15628.9	1.4	-7.6	51.0
556.9	16710.5	-0.2	-0.2	51.0
530.2	17995.6	-2.4	-10.5	51.0
514.1	18706.7	-4.4	-14.5	45.0
500.0	19515.7	-5.9	-13.9	51.0
487.8	20151.7	-6.0	-15.3	51.0
473.5	20914.8	-7.9	-19.1	41.0
464.1	21426.9	-8.8	-23.6	50.0
462.5	21514.9	-8.8	-20.5	52.0
457.9	21769.4	-9.4	-21.3	51.0
448.6	22200.0	-10.7	-22.8	54.0
434.5	23056.0	-12.3	-16.6	70.0
430.5	23328.5	-13.1	-16.6	71.0
426.5	23562.6	-13.4	-17.2	71.0
419.3	23988.5	-14.2	-22.2	51.0

STATION ALTITUDE 5007.5, FEET MSL
 27 AUG. 54
 ASCENSION NO. 149 0845 MDT

U PCL ATR 1071
 1410040140
 5 8 2

GEOMETRIC COORDINATES
 37.43056 LAT. N
 104.42333 LONG. W

TABLE 9

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CENTIGRADE	REL. HUM. PERCENT	DENSITY GRAMS PER CUBIC CENTIMETER	SPEED OF SOUND METER PER SECOND	WIND DATA DIRECTION SPEED REFERENCE	INDEX OF REFRACTION
7997.5	863.2	22.5	78.0	1.021.0	472.0	0.0	1.000322
4500.0	865.1	22.5	78.0	1.021.0	472.0	0.0	1.000322
4500.0	867.8	22.1	72.1	1.015.0	472.2	0.0	1.000310
5000.0	852.0	22.3	65.3	0.970.0	472.2	144.0	1.000299
5500.0	838.0	22.2	41.0	0.911.0	472.0	144.0	1.000290
5000.0	823.5	22.0	57.2	0.950.0	471.0	144.0	1.000291
6500.0	809.1	20.8	57.0	0.920.0	470.1	144.0	1.000274
7000.0	795.0	19.5	57.0	0.900.0	468.0	144.0	1.000267
7500.0	781.1	18.3	57.0	0.880.0	467.0	144.0	1.000260
8000.0	767.4	17.1	57.1	0.860.0	465.5	144.0	1.000254
8500.0	753.7	16.0	57.2	0.840.0	464.2	144.0	1.000246
9000.0	740.3	15.0	57.4	0.820.0	463.0	144.0	1.000240
9500.0	727.1	14.0	57.6	0.800.0	461.7	144.0	1.000234
10000.0	714.1	12.9	57.8	0.780.0	460.5	144.0	1.000228
10500.0	701.4	11.9	58.0	0.760.0	459.2	144.0	1.000222
11000.0	688.8	11.0	58.1	0.740.0	458.0	144.0	1.000216
11500.0	676.3	10.0	58.4	0.720.0	456.8	144.0	1.000210
12000.0	664.1	9.0	58.5	0.700.0	455.6	144.0	1.000204
12500.0	652.0	8.0	58.7	0.680.0	454.3	144.0	1.000198
13000.0	640.0	7.0	59.1	0.660.0	453.0	144.0	1.000192
13500.0	628.3	5.9	49.0	0.640.0	451.7	144.0	1.000186
14000.0	616.7	4.8	51.6	0.620.0	450.4	144.0	1.000180
14500.0	605.3	3.6	54.3	0.600.0	449.0	144.0	1.000174
15000.0	594.1	2.7	60.3	0.580.0	447.6	144.0	1.000168
15500.0	583.0	1.7	54.0	0.560.0	446.3	144.0	1.000162
16000.0	572.1	0.6	51.7	0.540.0	445.0	144.0	1.000156
16500.0	561.4	-0.4	52.6	0.520.0	444.1	144.0	1.000150
17000.0	550.8	-1.4	54.1	0.500.0	442.9	144.0	1.000144
17500.0	540.3	-2.4	56.1	0.480.0	441.7	144.0	1.000138
18000.0	530.1	-3.4	57.9	0.460.0	440.5	144.0	1.000132
18500.0	520.0	-4.6	49.8	0.440.0	439.4	144.0	1.000126
19000.0	510.1	-5.6	47.3	0.420.0	438.2	144.0	1.000120
19500.0	500.3	-6.6	52.8	0.400.0	437.0	144.0	1.000114
20000.0	490.7	-7.6	50.7	0.380.0	435.7	144.0	1.000108
20500.0	481.2	-8.6	45.4	0.360.0	434.5	144.0	1.000102
21000.0	471.9	-9.6	38.2	0.340.0	433.2	144.0	1.000096
21500.0	462.8	-10.6	36.5	0.320.0	432.0	144.0	1.000090
22000.0	453.8	-11.6	33.2	0.300.0	430.7	144.0	1.000084
22500.0	444.9	-12.1	44.9	0.280.0	429.5	144.0	1.000078
23000.0	436.2	-12.1	46.0	0.260.0	428.2	144.0	1.000072

STATION ALTITUDE 3457.70 FEET MSL
 27 AUG. 84
 ASCENSION NO. 145 0845 MDT

USFPA AND DATA
 2400000160
 5 11 9

TABLE 9 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEWPOINT FALGRFES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³	SPEED OF SOUND KNOTS	WIND DATA DIRECTION SPEED PERCENTS (TH) KNOTS	INDEX OF REFRACTION
23500.0	427.6	-13.3	-17.0	73.5	572.4	178.4	1.000177

STATION ALTITUDE 3697.10 FEET MSL
27 AUG. 84 0845 MDT
ASCENSION NO. 149

WIND DIRECTION
2400Z/0140
S W W

GEODETIC COORDINATES
72-59'34" LAT N
16-42'27" LONG W

TABLE 10

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.		WIND DATA	
MILLIBARS	FEET	ATP	DEWPOINT	PERCENT	WIND DIRECTION	WIND SPEED	WIND VELOCITY
		DEGREES	CENTIGRADE		DEGREES (TR)	KNOTS	
550.0	5091.	27.3	15.2	44.	739.3	4.1	
500.0	6820.	20.0	11.2	57.	246.7	4.7	
750.0	8635.	15.2	7.7	57.	234.2	4.0	
700.0	10546.	11.3	7.8	53.	242.2	4.0	
650.0	12560.	7.3	-1.6	51.	273.2	2.5	
600.0	14710.	3.1	-6.9	56.	125.5	3.3	
550.0	17016.	-1.5	-2.5	54.	181.5	3.5	
500.0	19488.	-5.9	-17.9	53.	211.9	5.7	
450.0	22177.	-10.5	-22.0	55.	221.7	0.5	

STATION ALTITUDE 4003.69 FEET MSL
27 AUG. 84
ASCENSION NO. 18 0845 MDT

SIGNIFICANT LEVEL DATA

240020001P

DN

TABLE 11

GEODETIC COORDINATES
32.57209 LAT DEG
106.29439 LON DEG

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE		REL. NUM. PERCENT
	AIR DEGREES	DEWPOINT CENTIGRADE	
881.6	4003.7	20.7	18.1
874.1	4247.4	20.9	17.5
850.0	5045.4	21.5	14.6
808.1	6485.9	20.4	12.9
700.0	10508.6	12.2	4.2
/622.4	13709.9	5.5	-3.1
500.0	19487.5	-5.0	-16.2
487.5	20140.9	-6.3	-13.8
472.3	20954.1	-7.7	-20.1
468.3	21171.8	-7.6	-25.1
450.1	22183.3	-9.3	-26.5
433.5	23134.9	-11.8	-21.8
427.6	23480.1	-12.2	-17.4
426.2	23562.6	-12.5	-19.2
411.9	24415.8	-15.6	-17.6
400.0	25143.3	-16.4	-20.9
387.2	25946.2	-18.0	-29.7
379.7	26426.3	-19.4	-23.8
368.3	27170.2	-20.9	-31.7
361.4	27629.7	-21.5	-29.3
353.1	28192.1	-23.0	-26.6
348.8	28487.5	-23.4	-26.9
			85.0
			81.0
			65.0
			62.0
			58.0
			54.0
			41.0
			55.0
			36.0
			23.0
			23.0
			43.0
			65.0
			57.0
			83.0
			68.0
			35.0
			68.0
			37.0
			49.0
			72.0
			73.0

STATION ALTITUDE 4003.69 FEET MSL
27 AUG. 84
ASCENSION NO. 18

UPPER AIR DATA
2400200018
DON

GEODETIC COORDINATES
32.57209 LAT DEG
106.29439 LON DEG

0845 MDT

TABLE 12

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
4003.7	881.6	20.7	18.1	85.0	1035.8	670.8	300.0	4.1	1.000322
4500.0	866.4	21.1	16.7	75.9	1017.3	671.1	298.4	4.2	1.000310
5000.0	851.4	21.5	14.8	65.9	999.1	671.2	296.9	4.2	1.000296
5500.0	836.5	21.2	14.1	64.1	983.0	670.8	295.5	4.3	1.000290
6000.0	822.0	20.8	13.5	63.0	967.3	670.3	288.8	4.2	1.000283
6500.0	807.7	20.4	12.8	62.0	951.9	669.8	266.3	3.7	1.000278
7000.0	793.4	19.4	11.8	61.5	938.7	668.5	255.0	3.9	1.000270
7500.0	779.4	18.3	10.7	61.0	925.6	667.2	252.3	4.3	1.000264
8000.0	765.6	17.3	9.6	60.5	912.8	665.9	251.5	4.8	1.000257
8500.0	752.0	16.3	8.5	60.0	900.1	664.7	251.6	5.4	1.000251
9000.0	738.7	15.3	7.4	59.5	887.5	663.4	252.5	5.8	1.000245
9500.0	725.7	14.3	6.4	59.0	875.2	662.1	253.7	6.3	1.000239
10000.0	712.8	13.2	5.3	58.5	863.0	660.8	256.1	6.2	1.000233
10500.0	700.2	12.2	4.2	58.0	851.0	659.6	259.8	5.8	1.000226
11000.0	687.5	11.2	3.1	57.4	838.8	658.3	266.2	5.0	1.000223
11500.0	675.0	10.1	1.9	56.8	826.8	657.0	277.4	4.0	1.000217
12000.0	662.7	9.1	.8	56.1	815.0	655.7	286.4	3.2	1.000212
12500.0	650.7	8.0	-.3	55.5	803.3	654.4	297.0	2.4	1.000208
13000.0	638.8	7.0	-1.4	54.9	791.8	653.1	288.8	1.7	1.000203
13500.0	627.2	5.9	-2.6	54.3	780.5	651.8	262.4	1.1	1.000198
14000.0	615.6	5.0	-3.7	53.3	768.9	650.6	213.5	.1	1.000194
14500.0	604.0	4.1	-4.8	52.2	757.0	649.5	91.8	1.0	1.000190
15000.0	592.7	3.2	-6.0	51.1	745.4	648.4	112.0	1.7	1.000186
15500.0	581.6	2.2	-7.1	50.0	733.9	647.3	123.0	2.5	1.000181
16000.0	570.7	1.3	-8.2	48.8	722.7	646.1	143.8	3.6	1.000176
16500.0	559.9	.4	-9.4	47.7	711.6	645.0	155.3	4.9	1.000174
17000.0	549.4	-.5	-10.5	46.6	700.6	643.9	168.0	5.6	1.000170
17500.0	539.1	-1.4	-11.6	45.5	689.9	642.8	177.2	6.3	1.000167
18000.0	529.0	-2.3	-12.8	44.3	679.3	641.7	184.3	6.6	1.000163
18500.0	519.1	-3.2	-13.9	43.2	668.8	640.6	189.5	6.5	1.000160
19000.0	509.3	-4.1	-15.1	42.1	658.6	639.4	192.5	5.7	1.000157
19500.0	499.8	-5.0	-16.1	41.3	648.5	638.3	200.4	5.4	1.000154
20000.0	490.2	-6.0	-14.3	42.0	638.2	637.2	212.6	6.0	1.000153
20500.0	480.7	-6.9	-16.4	46.6	628.2	636.1	218.1	6.9	1.000149
21000.0	471.5	-7.7	-21.0	33.3	618.1	635.0	219.5	7.8	1.000144
21500.0	462.3	-8.2	-25.6	23.0	607.4	634.4	220.7	8.4	1.000139
22000.0	453.3	-9.0	-26.3	23.0	597.5	633.4	221.9	8.8	1.000137
22500.0	444.5	-10.1	-24.5	29.7	588.3	632.0	222.2	9.2	1.000136
23000.0	435.8	-11.4	-22.3	40.2	579.6	630.5	222.0	9.8	1.000135
23500.0	427.3	-12.3	-17.8	63.1	569.8	629.7	220.2	10.0	1.000135

UPPER AIR DATA
2400200018
DON

STATION ALTITUDE 4003.69 FEET MSL
27 AUG. 84
ASCENSION NO. 18 0845 MDT

GEODETIC COORDINATES
32.57209 LAT DLG
106.29439 LON DEG

TABLE 12 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
24000.0	418.8	-14.1	70.3	562.4	627.4	218.3	10.1	1.000133
24500.0	410.5	-15.7	81.3	554.7	625.5	217.2	10.4	1.000132
25000.0	402.3	-16.2	71.0	544.9	624.8	216.6	10.7	1.000126
25500.0	394.3	-17.1	53.3	536.0	623.6	217.0	11.1	1.000124
26000.0	386.4	-18.2	38.7	527.5	622.3	216.8	11.6	1.000121
26500.0	378.6	-19.5	64.9	519.6	620.7	215.3	12.7	1.000121
27000.0	370.9	-20.6	44.1	511.2	619.3			1.000117
27500.0	363.3	-21.3	45.6	502.4	618.4			1.000115
28000.0	355.9	-22.5	64.1	494.3	617.0			1.000114

STATION ALTITUDE 4003.69 FEET MSL
27 AUG. 84
ASCENSION NO. 18 0845 MDT

MANDATORY LEVELS
2400200018
DON

GEODETIC COORDINATES
32.57209 LAT DEG
106.29439 LON DEG

TABLE 13

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.		WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE	PERCENT	DIRECTION DEGREES(TN)	SPEED KNOTS	
850.0	5042.	21.5	14.6	65.	296.8	4.3	
800.0	6767.	19.8	12.3	62.	256.5	3.8	
750.0	8583.	16.1	8.4	60.	251.6	5.5	
700.0	10498.	12.2	4.2	58.	259.9	5.8	
650.0	12523.	8.0	-4	55.	297.9	2.4	
600.0	14675.	3.7	-5.2	52.	101.8	1.3	
550.0	16979.	-4	-10.4	47.	167.9	5.6	
500.0	19460.	-5.0	-16.2	41.	199.9	5.4	
450.0	22155.	-9.3	-26.5	23.	222.3	8.9	
400.0	25101.	-16.4	-20.9	68.	216.7	10.8	
350.0	28352.	-23.3	-26.8	73.			

STATION ALTITUDE 3989.00 FEET MSL
27 AUG. 84 1038 MDT
ASCENSION NO. 439

SIGNIFICANT LEVEL DATA
2400020439
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 14

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES	DEWPOINT CENTIGRADE	
883.6	3989.0	26.8	17.3	56.0
878.3	4163.4	24.7	15.9	58.0
850.0	5104.5	21.8	15.6	68.0
779.8	7554.2	18.8	8.2	50.0
720.7	9760.1	13.8	4.7	54.0
700.0	10566.1	12.3	1.3	47.0
644.6	12819.8	7.5	-3.1	47.0
587.2	15317.4	1.1	-7.4	53.0
581.0	15598.3	.9	-8.3	50.0
563.6	16400.2	-.5	-10.7	46.0
529.0	18055.9	-4.1	-10.7	60.0
510.6	18973.7	-4.8	-14.4	47.0
503.1	19356.4	-5.4	-9.6	72.0
500.0	19516.0	-6.0	-11.3	66.0
495.8	19733.5	-5.9	-17.3	40.0
479.6	20587.7	-7.2	-17.1	45.0
460.5	21626.7	-8.8	-28.2	19.0
455.8	21887.5	-10.0	-31.0	16.0
440.0	22779.5	-11.8	-25.5	31.0
432.2	23229.6	-12.7	-16.8	71.0
424.7	23668.5	-13.8	-22.9	46.0
400.0	25160.2	-16.2	-28.7	33.0

STATION ALTITUDE 3989.00 FEET MSL
 27 AUG. 84
 ASCENSION NO. 439 1038 MDT

UPPER AIR DATA
 2400020439
 WHITE SANDS

GEODETIC COORDINATES
 32.40043 LAT DLG
 106.37033 LON DEG

TABLE 15

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
3989.0	883.6	26.8	17.3	56.0	1017.5	677.6	30.0	6.0	1.000310
4000.0	883.3	26.7	17.2	56.1	1017.7	677.4	29.9	6.0	1.000310
4500.0	868.1	23.7	15.8	61.6	1010.8	673.8	21.5	4.9	1.000303
5000.0	853.1	22.1	15.7	66.9	998.5	672.1	8.8	4.0	1.000300
5500.0	838.3	21.3	14.5	65.1	984.3	671.0	349.9	3.3	1.000292
6000.0	823.6	20.7	13.0	61.4	969.7	670.1	331.1	3.1	1.000282
6500.0	809.3	20.1	11.5	57.7	955.3	669.3	316.6	2.5	1.000273
7000.0	795.2	19.5	10.0	54.1	941.1	668.4	274.4	2.1	1.000264
7500.0	781.3	18.9	8.3	50.4	927.1	667.5	231.2	3.2	1.000255
8000.0	767.5	17.8	7.5	50.8	914.3	666.2	224.2	4.8	1.000250
8500.0	753.9	16.7	6.7	51.7	901.8	664.8	221.7	6.3	1.000245
9000.0	740.5	15.5	5.9	52.6	889.4	663.5	222.4	6.3	1.000240
9500.0	727.4	14.4	5.1	53.5	877.3	662.1	222.8	6.2	1.000236
10000.0	714.5	13.4	3.7	51.9	865.1	660.8	222.1	5.8	1.000230
10500.0	701.7	12.4	1.6	47.6	852.8	659.6	220.4	5.1	1.000222
11000.0	689.0	11.4	.5	47.0	840.6	658.3	216.6	4.0	1.000217
11500.0	676.5	10.3	-.5	47.0	828.6	657.0	209.1	3.5	1.000212
12000.0	664.2	9.2	-1.5	47.0	816.8	655.7	199.7	3.4	1.000208
12500.0	652.2	8.2	-2.4	47.0	805.2	654.4	191.8	3.3	1.000204
13000.0	640.3	7.0	-3.4	47.4	793.8	653.0	184.9	3.2	1.000200
13500.0	628.4	5.8	-4.2	48.6	782.8	651.5	183.1	2.9	1.000196
14000.0	616.8	4.5	-5.1	49.8	772.0	650.0	181.9	2.6	1.000193
14500.0	605.4	3.2	-5.9	51.0	761.3	648.4	183.4	2.3	1.000189
15000.0	594.2	1.9	-6.8	52.2	750.8	646.9	189.0	2.0	1.000186
15500.0	583.2	1.0	-8.0	51.0	739.5	645.7	203.8	1.5	1.000182
16000.0	572.2	.2	-9.5	48.0	727.8	644.7	227.5	1.3	1.000177
16500.0	561.5	-.7	-10.6	46.8	716.6	643.6	253.8	1.4	1.000174
17000.0	550.8	-1.8	-10.6	51.1	705.8	642.3	228.4	.9	1.000171
17500.0	540.4	-2.9	-10.6	55.3	695.2	641.1	163.0	1.0	1.000169
18000.0	530.1	-4.0	-10.7	59.5	684.8	639.8	155.9	1.4	1.000167
18500.0	520.0	-4.4	-12.4	53.7	673.0	639.2	157.6	1.7	1.000162
19000.0	510.1	-4.8	-14.0	48.7	661.3	638.6	187.9	2.8	1.000158
19500.0	500.3	-5.9	-11.1	66.6	651.0	637.5	197.6	4.2	1.000159
20000.0	490.7	-6.3	-17.2	41.6	639.8	636.8	197.9	5.9	1.000151
20500.0	481.2	-7.1	-17.1	44.5	629.3	635.9	200.1	7.1	1.000149
21000.0	471.9	-7.8	-20.7	34.7	619.1	634.9	203.7	8.1	1.000144
21500.0	462.8	-8.6	-26.3	22.2	609.1	633.8	204.7	8.9	1.000140
22000.0	453.8	-10.2	-30.0	17.9	601.0	631.8	205.0	9.7	1.000137
22500.0	444.9	-11.2	-26.7	26.3	591.4	630.7	205.6	9.7	1.000135
23000.0	436.2	-12.2	-20.4	50.6	581.8	629.6	208.4	7.6	1.000136

STATION ALTITUDE 3989.00 FEET MSL
27 AUG. 84
ASCENSION NO. 439

1038 MDT

UPPER AIR DATA
2400020439
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 15 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
23500.0	427.6	-13.4	-20.3	55.6	572.8	628.2	217.7	7.2	1.000134
24000.0	419.1	-14.3	-24.1	43.1	563.6	627.0			1.000130
24500.0	410.7	-15.1	-26.0	38.8	554.2	626.0			1.000126
25000.0	402.6	-15.9	-28.0	34.4	545.0	625.0			1.000125

STATION ALTITUDE 3989.00 FEET MSL
 27 AUG. 84 1038 MDT
 ASCENSION NO. 439

MANDATORY LEVELS
 2400020439
 WHITE SANDS

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

TABLE 16

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.		WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	PERCENT	DIRECTION DEGREES(TN)	SPEED KNOTS	
850.0	5101.	21.8	15.6	68.	5.5	3.8	
800.0	6825.	19.7	10.5	55.	294.9	2.2	
750.0	8642.	16.3	6.5	52.	221.9	6.3	
700.0	10556.	12.3	1.3	47.	220.1	5.0	
650.0	12580.	8.0	-2.6	47.	190.4	3.3	
600.0	14727.	2.6	-6.4	52.	184.1	2.2	
550.0	17019.	-1.9	-10.6	51.	224.5	.8	
500.0	19488.	-6.0	-11.3	66.	197.7	4.2	
450.0	22177.	-10.7	-28.4	21.	205.2	9.4	
400.0	25117.	-16.2	-28.7	33.			

STATION ALTITUDE 3997.31 FEET MSL
27 AUG. 34 1037 MDT
ASCENSION NO. 150

SIGNIFICANT LEVEL DATA

2400000150
C. 1.0

CO-ORDINATE CONVERSIONS
37.42000 LAT
116.42000 LONG

TABLE 17

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR	WET-BULB	
883.3	3997.3	26.3	19.2	61.0
870.0	4436.4	24.1	16.4	62.0
850.0	5105.5	23.0	15.6	63.0
759.6	8300.7	17.5	8.1	64.0
700.0	10576.3	12.2	3.4	65.0
628.8	13504.3	6.7	-4.4	65.0
584.4	15443.3	1.2	-4.8	64.0
567.4	16242.9	-3.3	-8.7	63.0
559.0	16635.1	-1.1	-7.0	64.0
548.4	17136.8	-2.1	-11.4	60.0
523.6	18343.6	-3.7	-9.7	73.0
521.9	18428.2	-3.7	-13.1	63.0
514.7	18788.8	-4.5	-11.7	67.0
500.0	19538.4	-5.4	-19.8	71.0
466.6	21311.9	-8.9	-18.4	66.0
460.2	21663.5	-9.3	-24.8	77.0
443.4	22605.2	-11.7	-27.3	76.0
435.5	23057.5	-12.9	-16.5	74.0
430.2	23344.9	-12.9	-22.3	65.0
408.2	24675.4	-15.7	-25.1	64.0

STATION ALTITUDE 1997.70 FEET MSL
27 AUG. 34
ASCENSION NO. 150

UPPER AIR DATA
240000150
5 M

GEOMETRIC COORDINATES
33.68514 LAT DEG
176.42707 LONG DEG

1037 MDT

TABLE 18

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³	SPEED OF SOUND M/SEC	DIRECTION OF WIND (DEGREES TRUE)	WIND SPEED KNOTS	INDEX OF REFRACTION
3997.3	883.3	26.3	18.2	61.0	1.019.4	677.2		5.0	1.000345
4000.0	881.2	26.3	18.2	61.0	1.019.3	677.2		5.0	1.000345
4500.0	868.1	24.0	16.3	62.1	1.000.5	674.3		4.8	1.000305
5000.0	853.1	23.2	15.7	62.8	995.0	673.3		4.4	1.000209
5500.0	838.3	22.3	14.7	61.0	970.0	672.2		4.4	1.000201
6000.0	823.7	21.5	13.5	60.5	947.0	671.1		4.9	1.000187
6500.0	809.3	20.6	12.3	59.1	923.3	670.0		4.7	1.000172
7000.0	795.2	19.7	11.2	57.7	899.8	668.5		4.3	1.000156
7500.0	781.3	18.9	10.0	56.3	876.5	667.7		4.3	1.000141
8000.0	767.7	18.0	8.8	54.8	852.4	666.5		4.6	1.000125
8500.0	754.2	17.0	7.7	54.1	828.6	665.4		5.0	1.000109
9000.0	740.8	15.0	6.7	54.3	804.6	664.0		5.5	1.000093
9500.0	727.6	14.7	5.6	54.5	780.7	662.5		5.8	1.000077
10000.0	714.6	13.5	4.6	54.7	756.8	661.1		5.6	1.000061
10500.0	701.9	12.4	3.6	55.0	732.7	659.7		5.1	1.000045
11000.0	689.2	11.4	2.3	53.6	708.4	658.5		4.4	1.000029
11500.0	676.7	10.5	1.0	51.8	684.2	657.3		3.7	1.000013
12000.0	664.4	9.5	-3	50.1	659.9	656.1		3.1	1.000000
12500.0	652.4	8.6	-1.7	48.4	635.6	654.9		2.4	1.000000
13000.0	640.5	7.6	-3.0	46.7	611.4	653.8		1.7	1.000000
13500.0	628.9	6.7	-4.4	45.0	587.0	652.6		1.9	1.000105
14000.0	617.3	5.3	-4.3	43.8	562.1	651.0		2.7	1.000103
14500.0	605.8	3.9	-4.4	54.7	537.2	649.3		3.3	1.000101
15000.0	594.6	2.5	-4.6	59.5	512.4	647.7		3.6	1.000102
15500.0	583.6	1.1	-5.0	63.5	487.5	646.1		3.2	1.000104
16000.0	572.6	.2	-7.5	56.4	462.6	644.8		2.2	1.000100
16500.0	561.9	-8	-7.6	60.2	437.7	643.6		1.1	1.000172
17000.0	551.3	-1.8	-10.3	52.4	412.8	642.3		1.0	1.000172
17500.0	540.8	-2.6	-10.9	52.5	387.9	641.4		1.3	1.000173
18000.0	530.5	-3.2	-10.1	58.7	363.0	640.7		1.5	1.000177
18500.0	520.5	-3.9	-12.8	49.8	338.1	639.8		2.1	1.000182
19000.0	510.5	-4.8	-13.6	49.7	313.2	638.7		2.5	1.000159
19500.0	500.7	-5.4	-19.3	32.3	288.2	637.8		2.2	1.000150
20000.0	491.1	-6.3	-19.2	34.9	263.3	636.7		1.1	1.000172
20500.0	481.6	-7.3	-18.8	30.1	238.4	635.6		1.0	1.000140
21000.0	472.3	-8.3	-18.5	43.4	213.5	634.4		0.0	1.000146
21500.0	463.2	-9.1	-21.4	35.8	188.6	633.3		0.6	1.000142
22000.0	454.1	-10.2	-25.7	26.6	163.7	632.0		0.2	1.000175
22500.0	445.2	-11.4	-27.0	20.1	138.8	630.4		0.5	1.000172
23000.0	436.5	-12.7	-17.4	67.9	113.9	629.2		0.1	1.000170

STATION ALTITUDE 3007.73 FEET MSL
 27 AUG. 64 1037 MDT
 ASCENSION NO. 1

UNCOR. AIR DATA
 242100150

TABLE 18 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REF. HUM. PERCENT	DENSITY GF/CM ³	SPEED OF SOUND M/SEC	WIND DATA		REFRACTION SECONDS OF ARC	INDEX OF REFRACTION
						WIND KNOTS	DIRECTION DEGREES (TN)		
23500.0	427.9	-13.2	44.9	577.0	478.4				1.000177
24000.0	419.4	-14.3	44.5	587.0	477.1				1.000171
24500.0	411.1	-15.3	44.1	595.0	475.9				1.000158

GEOMETRIC COORDINATES
 22.43°34' LAT N
 106.41° LONG W

STATION ALTITUDE 3597.33 FEET MSL
 27 AUG. 84 1037 MDT
 ASCENSION NO. 150

"ALPHEIOU TIVVIS"
 240000450
 0.00

GEOSTATIC COORDINATES
 35.43-16 LAT N
 16.42-10 LONG W

TABLE 19

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.		WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT PERCENT	PERCENT	REL. HUM.	DIRECTION DEGREES (T)	SPEED MILES
850.0	5162.	27.0	15.4	43.	21.7	21.7	3.3
800.0	6331.	20.0	11.6	58.	23.7	23.7	3.3
750.0	7650.	14.7	7.4	54.	25.6	25.6	5.1
700.0	10564.	12.2	1.4	55.	21.0	21.0	5.0
650.0	12592.	9.4	-1.9	42.	27.1	27.1	3.2
600.0	14745.	3.2	-4.5	47.	135.1	135.1	3.6
550.0	17039.	-1.9	-17.9	50.	27.1	27.1	4
500.0	19511.	-5.4	-12.8	31.	21.6	21.6	3.2
450.0	22198.	-10.7	-24.3	26.	22.2	22.2	9.7

STATION ALTITUDE 4000.0 FEET MSL
19 AUG. 84 1115 MDT
ASCENSION NO. 19

SIGNIFICANT LEVEL DATA
240000Z
00

GEOSTATIC COORDINATES
20.57223 LAT
114.09223 LONG

TABLE 20

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES	TEMP. MNT CENTIGRADE	
802.0	4001.7	29.5	19.7	55.0
875.8	4309.4	26.3	14.7	55.0
850.0	5073.7	23.4	14.1	55.0
850.1	5752.1	21.4	13.0	55.0
793.6	7032.1	20.3	9.5	55.0
726.2	9527.7	14.9	4.1	55.0
700.0	10546.3	12.5	2.1	55.0
670.6	11726.3	10.5	.2	55.0
643.0	12823.8	8.2	-3.6	45.0
616.2	14023.7	5.2	-5.6	42.0
604.7	14529.4	4.7	-2.5	55.0
596.1	14912.6	3.0	-4.7	57.0
555.7	16748.9	-1.2	-9.8	52.0
544.7	17202.5	-2.3	-9.4	55.0
522.3	18386.8	-4.0	-9.4	56.0
510.7	18516.5	-4.0	-11.0	55.0
513.1	19848.2	-4.2	-15.7	45.0
505.1	19255.7	-4.5	-12.4	54.0
500.0	19519.5	-4.9	-15.2	44.0
487.5	20172.6	-5.7	-19.0	54.0
474.1	20888.7	-7.8	-16.9	49.0
466.3	21313.0	-8.2	-19.7	50.0
447.3	22656.6	-10.7	-25.2	55.0
437.9	22915.2	-11.4	-16.5	56.0
420.7	23917.9	-13.2	-21.6	45.0
411.8	24452.3	-14.8	-26.5	56.0
404.6	24890.8	-15.8	-29.7	55.0
400.0	25174.2	-16.4	-27.6	55.0
390.3	25781.0	-17.4	-23.1	49.0
382.5	26278.3	-17.2	-23.9	51.0
377.3	26614.4	-19.0	-22.5	55.0
369.1	27152.1	-19.8	-29.4	45.0
363.7	27511.4	-20.9	-22.6	55.0
350.3	28421.0	-22.9	-15.6	55.0

STATION ALTITUDE 4002.49 FEET MSL
19 AUG. 84
ASCENSION NO. 19 1115 MDT

UPPER AIR DATA
2410200010
NO

GEOMETRIC COORDINATES
32.973.0 LAT N
116.224.0 LONG W

TABLE 21

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY		SPEED OF SOUND METER	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE		GASEOUS METER	DIRECTION DEGREES (TN)		SPEED KNOTS		
4003.7	882.0	13.5	19.7	59.0	1008.5	650.0		30.0	7.0	1.000371
4500.0	867.1	25.6	14.6	50.7	1007.0	675.9		17.0	7.7	1.000264
5000.0	852.2	23.7	14.2	55.3	992.9	673.6		157.0	7.7	1.000261
5500.0	837.4	22.1	13.6	59.1	950.9	671.9		142.0	6.1	1.000267
6000.0	822.9	21.2	12.8	52.9	917.3	671.7		129.6	6.3	1.000260
6500.0	808.6	20.8	11.3	54.6	882.4	671.0		104.7	7.7	1.000271
7000.0	794.5	20.3	9.7	50.3	872.7	669.3		275.0	7.7	1.000241
7500.0	780.5	19.3	8.6	50.0	824.7	669.0		246.4	6.5	1.000276
8000.0	766.7	18.2	7.6	50.0	812.0	669.7		236.1	7.1	1.000280
8500.0	753.2	17.1	6.6	50.0	800.7	665.4		231.7	7.1	1.000264
9000.0	740.0	16.0	5.6	50.0	787.7	664.1		229.7	7.3	1.000279
9500.0	726.9	15.0	4.6	50.0	875.1	662.7		228.0	7.3	1.000274
10000.0	713.9	13.8	3.4	49.5	861.2	661.3		232.7	6.3	1.000227
10500.0	701.2	12.6	2.2	49.0	851.6	659.8		274.3	5.5	1.000271
11000.0	688.6	11.8	1.4	48.6	839.6	658.9		273.6	5.1	1.000219
11500.0	676.1	11.1	.6	48.2	825.6	658.0		227.7	5.0	1.000274
12000.0	663.9	10.2	-.7	46.8	813.5	656.8		219.0	5.1	1.000205
12500.0	651.9	9.0	-2.3	44.6	803.3	655.4		213.7	6.3	1.000203
13000.0	640.0	7.9	-3.9	42.9	791.7	654.0		205.3	7.4	1.000167
13500.0	628.3	6.6	-5.3	42.5	780.5	652.4		184.0	7.3	1.000164
14000.0	616.7	5.3	-6.6	42.0	769.0	650.8		158.0	7.5	1.000190
14500.0	605.4	4.7	-3.0	57.1	756.6	650.4		130.2	7.5	1.000103
15000.0	594.1	2.8	-4.9	56.8	748.0	648.0		127.0	7.5	1.000115
15500.0	583.0	1.7	-6.3	55.4	737.2	646.6		124.4	7.2	1.000103
16000.0	572.1	.5	-7.7	54.1	726.5	645.2		170.1	.9	1.000179
16500.0	561.4	-.6	-9.0	52.7	716.0	643.8		246.0	1.2	1.000175
17000.0	550.8	-1.7	-9.6	54.6	705.4	642.5		265.5	1.4	1.000172
17500.0	540.4	-2.6	-9.4	59.5	694.4	641.4		250.0	1.2	1.000170
18000.0	530.1	-3.4	-9.4	63.2	683.1	641.5		203.4	1.4	1.000173
18500.0	520.0	-4.0	-10.8	59.0	671.9	639.9		155.0	7.3	1.000174
19000.0	510.1	-4.3	-14.4	45.2	660.0	638.2		195.4	7.7	1.000150
19500.0	500.4	-4.9	-15.0	44.7	648.9	636.4		201.1	7.0	1.000150
20000.0	490.6	-5.5	-17.9	36.6	637.0	634.7		207.0	6.8	1.000150
20500.0	481.3	-6.7	-17.9	40.4	624.5	634.3		201.0	6.4	1.000168
21000.0	472.0	-7.9	-17.6	43.6	612.0	632.9		200.7	6.0	1.000162
21500.0	462.9	-8.5	-20.4	37.6	600.9	632.0		200.0	6.4	1.000162
22000.0	453.9	-9.5	-22.4	33.9	589.0	630.9		202.1	7.5	1.000159
22500.0	445.0	-10.4	-24.5	30.2	576.4	631.7		206.7	7.1	1.000176
23000.0	436.3	-11.6	-16.9	44.5	565.0	631.5		214.5	7.6	1.000175
23500.0	427.7	-12.4	-19.5	55.5	550.0	630.4		225.4	7.0	1.000174

STATION ALTITUDE 1000.0 FEET ASL
 10 AUG. 54
 OBSERVATION NO. 1 1115 MDT

UNDEVELOPED DATA
 4100000000
 000

ASTRONOMIC COORDINATES
 1 1 1115 MDT
 1 1 1115 MDT

TABLE 21 Cont'd

GEOMETRIC ALTITUDE FSL FEET	PRESSURE MILLIBARS	TEMPERATURE °F	DEWPOINT °F	REL. HUM. PERCENT	DENSITY GRAMS PER CUBIC FOOT	SOURCE OF DATA	INDEX OF REFRACTION NAUTIC MILES	INDEX OF REFRACTION
24100.0	419.3	-13.4	-22.5	46.2	542.0	422.1	236.2	1.000171
24500.0	411.0	-14.9	-26.8	35.3	554.1	420.2	223.8	1.000127
25000.0	402.0	-16.0	-28.6	32.7	565.5	424.0	222.4	1.000127
25500.0	394.3	-16.9	-24.9	40.9	576.7	423.4		1.000124
26000.0	386.3	-17.8	-23.4	41.0	587.7	422.2		1.000127
26500.0	379.1	-18.7	-22.0	39.9	598.7	421.4		1.000122
27000.0	371.4	-19.6	-30.1	36.3	610.0	421.3		1.000127
27500.0	363.9	-20.9	-31.9	36.2	622.2	421.0		1.000124
28000.0	356.4	-22.0	-33.9	32.5	634.3	420.5		1.000121

STATION ALTITUDE 407.5 FEET ASL
19 AUG. 84 19 1115 MDT
ASCENSION NO. 19

MANDATORY DATA
1400000012
000

COORDINATE COORDINATES
1 4.39429 LO. 000
1 4.39429 LO. 000

TABLE 22

PRESSURE EQUIPOTENTIAL MILLIBARS	FEET	TEMPERATURE		REL. HUMID. PERCENT	WIND DIRECTION DEGREES (TN)	WIND SPEED KNOTS
		AIR DEGREES CENTIGRAD	WET-BULB DEGREE CENTIGRAD			
850.0	5170.	23.4	14.1	50.	754.7	7.0
800.0	6792.	20.5	13.7	57.	759.5	7.7
750.0	8410.	14.0	6.4	70.	774.0	7.1
700.0	10036.	12.5	2.1	75.	736.9	5.5
650.0	12564.	9.0	-2.4	64.	712.8	4.0
600.0	14721.	7.0	-3.8	57.	747.7	3.0
550.0	17017.	-1.0	-2.0	55.	704.4	1.9
500.0	19491.	-6.7	-15.7	44.	711.1	1.7
450.0	22185.	-9.0	-23.7	32.	713.9	0.9
400.0	25132.	-16.4	-27.6	27.		

END

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